

## A Remarkable New Pseudopsectra from Maui (Neuroptera: Hermerobiidae)

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Flightless derivatives of volant native insects are always fascinating objects of study. Herein is presented the description of *Pseudopsectra cookeorum*, one of the finest and most spectacular of all of the known Hawaiian Neuroptera. Its discovery gives further weight to the opinion that a whole series of such local, aberrant offshoots of the large Hawaiian genus *Nesomicromus* remain to be discovered by diligent collecting. The evolutionary processes which are responsible for the origin of this unusual creature have created a flightless, spinose "monster" whose salient characters are unique among its known allies.

### ***Pseudopsectra cookeorum*, new species (fig. 1)**

Derm mostly glistening, appearing as if wet, basically brownish yellow marked with fuscous and piceous; head and antennae nearly concolorous, spines on crown darker; thoracic nota similarly colored, but pronotum tending to be darker on side margins; legs with femora somewhat clouded, fore and mid tibiae rather obscurely darkly biannulate; venter of abdomen yellowish apically but becoming darker basad; fore wings with entire margin with subequally spaced dark marks which make an alternating dark and pale marginal pattern, main veins with variable and irregular dark maculae.

*Head* with face shiny, but derm shallowly punctate, minutely alutaceous, finely hirsute; crown irregularly protuberant, asperate, setose, conspicuously spinose, the spines bipartite, each consisting of an elongate, heavy, rod-like base from the apex of which arises a strong, acuminate seta; antennae about as long as greatest chord of a fore wing; terminal segment of maxillary palpus about twice as long as penultimate, flattened, lanceolate-acuminate; distance across eyes, as seen from front, equal to length of pronotum plus about one half of crown.

*Thorax* with pronotum about one sixth broader than long, surface roughened by small tubercle-like bases of numerous, bipartite, short spines, and dorsum bristling with conspicuous, large, bipartite spines similar to but larger than those on crown, the larger of these fully as long as diameter of an eye (about 0.25 mm.), these large spines confined to the three transverse, lobe-like zones on dorsum, posterior zone with one spine on either side of median line, median zone with five to seven large spines on either side, anterior zone with about nine to twelve spines; median line of disk well defined anterior to basal zone, free from large spines and separating the median and anterior zones into halves; mesonotum with similar small and large spines, and with about four or five large spines on either side, metanotum with only a single pair.

*Wings* with fore pair shaped as illustrated, venation as illustrated, about twice as long as broad, hind (dorsal) margin continuously arcuate, thick,

entirely coarsely reticulated by a network of multitudinous, coarse, cross-veins all armed with small, bipartite spines, and marginal veins, main veins and their principal branches armed in addition with large, very conspicuous bipartite spines as on head and thorax, but some of them larger (some 0.4 mm. long); hind wings minute, easily overlooked fleshy flaps about 0.1 mm. long, evidently veinless.

*Legs* with fore and mid femora and tibiae bristling with spines and setae, hind pair setose but with fewer spines.

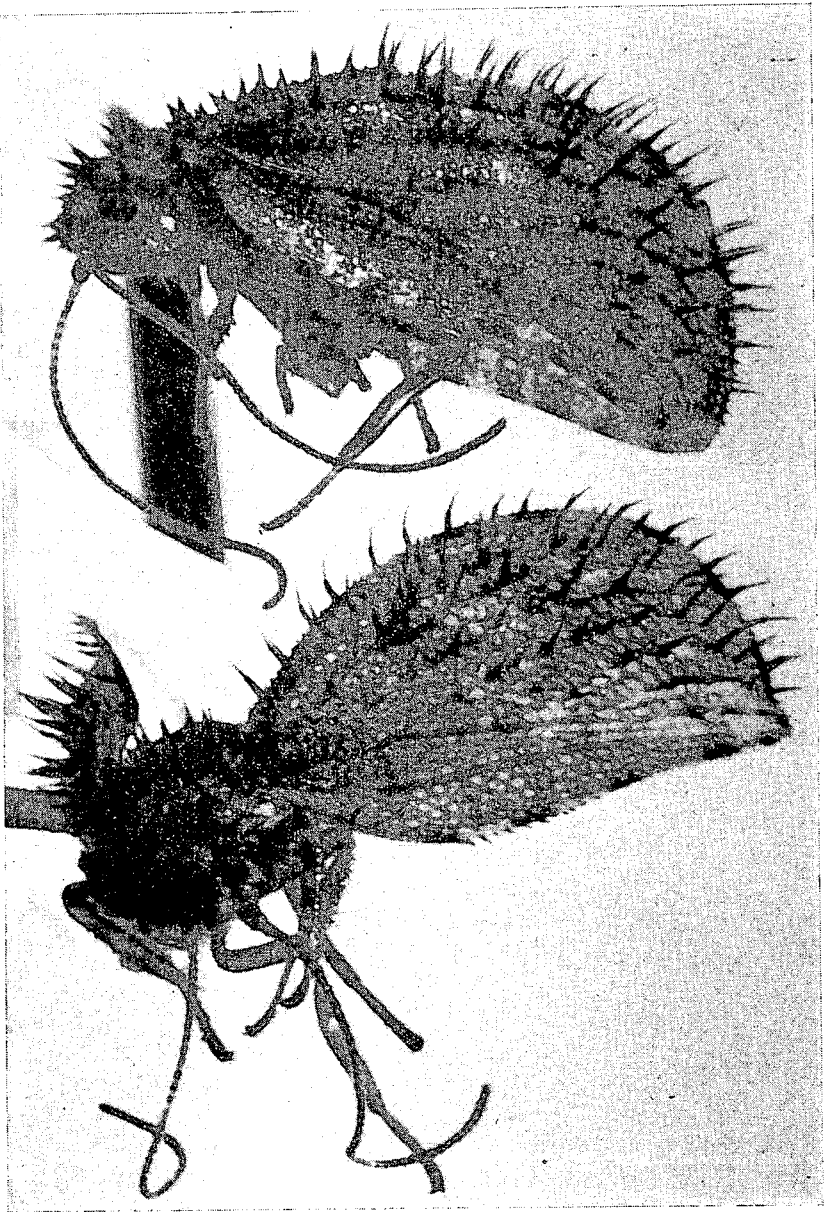
*Abdomen* moderately shiny; conspicuously setose, the setae arising from distinct basal granules.

Length (wings closed against body, measured from front of head to apex of wing): about 4 mm.; expanse: about 7.5 mm.

Island of Maui, Territory of Hawaii. Holotype male and allotype female beaten by me from *Dubautia* growing on the steep slope just inside the rim below the summit of Haleakala Crater at about 9700 feet elevation on April 25, 1945.

It is with much pleasure that I dedicate this remarkable indigene to my close friends, Dr. and Mrs. C. Montague Cooke, Jr., whose kindness and interest in my work made possible my 1945 collecting trip to Maui.

In my "Studies of Hawaiian Neuroptera" (Proc. Hawaiian Ent. Soc. 10 [3]: 487-510, 1940), two species were added to the then monotypic *Pseudopsectra*, and it was pointed out that with the discovery of the new species the gap between *Pseudopsectra* and *Nesothauma* had been reduced. This new species further reduces that gap. The prominent spines on the fore wings, thorax and head are distinctive, but these, remarkable as they are, are only relatively spectacular developments of the fine hairs or setae of our other hemerobiids. The pronounced reticulate pattern formed by the veins and cross-veins in the fore wings is shared by other species, especially by *P. swezeyi*.



Zimmerman *Pseudopsectra*, Proceedings, 1945 (1946)

Figure 1.—*Pseudopsectra cookeorum* Zimmerman, new species. Male holotype (upper figure) and female allotype. (Photographs by J. T. Yamamoto, courtesy of the Hawaiian Sugar Planters' Experiment Station.)